

- 1        **CIRCUIT DESIGN**
- 2        .Optimization (e.g., redundancy,  
         compaction)
- 3        .Translation (e.g., conversion,  
         equivalence)
- 4        .Testing or evaluating
- 5        ..Design verification (e.g.,  
         wiring line capacitance, fan-  
         out checking, minimum path  
         width)
- 6        ...Timing analysis (e.g., delay  
         time, path delay, latch  
         timing)
- 7        .Partitioning (e.g., function  
         block, ordering constraint)
- 8        .Floorplanning
- 9        ..Detailed placement (i.e.,  
         iterative improvement)
- 10       ..Constraint-based placement  
         (e.g., critical block  
         assignment, delay limits,  
         wiring capacitance)
- 11       ..Layout editor (e.g., updating)
- 12       .Routing (e.g., routing map,  
         netlisting)
- 13       ..Global routing (e.g., shortest  
         path, dead space, or duplicate  
         trace elimination)
- 14       ..Detailed routing (e.g., channel  
         routing, switch box routing)
- 15       ..PCB wiring
- 16       ..PLA, PLD, FPGA, OR MCM
- 17       .Programmable integrated circuit  
         (e.g., basic cell, standard  
         cell, macrocell)
- 18       .Logical circuit synthesizer
- 19       **DESIGN OF SEMICONDUCTOR MASK**
- 20       .Mesh generation
- 21       .Pattern exposure

**FOREIGN ART COLLECTIONS**

- FOR        **CLASS-RELATED FOREIGN DOCUMENTS**  
            **APPLICATIONS (364/400)**
- FOR 489 .Circuit design and analysis  
         (364/489)
- FOR 490 ..Integrated (364/490)
- FOR 491 ...Layout (364/491)

